

LISTING OF CLAIMS:

1. (Canceled)

2. A scroll compressor provided with a housing; a shaft having a crank part, which is offset, wherein said shaft is rotatably and axially supported by said housing; a movable scroll, which has a spiral shaped blade and an end plate and is driven to orbit by the crank part; and a fixed scroll, which has a spiral shaped blade that meshes with the movable scroll and an end plate and is fixed to said housing, such that, when said movable scroll is driven to orbit by the crank part of said shaft, a plurality of working chambers formed between the blade of said movable scroll and the blade of said fixed scroll move toward the center, and the volumes of the working chambers are successively reduced and fluid is compressed in the working chambers, said scroll compressor comprising:

a middle housing provided as part of said housing behind said movable scroll for supporting a thrust load in an axial direction of said shaft acting on said movable scroll along with the rise in the compression pressure of the fluid in the working chambers;

at least one ring-shaped groove forming a backpressure chamber in one of a back surface of the end plate of said movable scroll and a front surface of said middle housing facing and supporting the same;

a passage for introducing high-pressure fluid into said ring-shaped groove; and

at least one ring-shaped seal ring fitted movably in said ring-shaped groove. A scroll compressor as set forth in claim 1, wherein the sectional shape of said at least one ring-shaped seal ring is fit to be able to slightly incline in sectional shapes such that said seal ring slightly inclines in said ring-shaped groove.

3. (Original) A scroll compressor as set forth in claim 2, wherein an elastic member for biasing said seal ring toward an outer circumference or inner circumference of said ring-shaped groove is arranged behind said seal ring.

4. (Original) A scroll compressor as set forth in claim 2, wherein said at least one seal ring includes a first seal ring fit along an outer circumference of said ring-shaped groove and a second seal ring fit along an inner circumference of said ring-shaped groove, each fabricated from a material such as rubber, plastic, or metal having wear resistance, oil resistance, and elasticity; said first seal ring forms a ring-shaped projection having an outer diameter larger than an outer circumference diameter of said ring-shaped groove in a no-load state before being fit in said backpressure chamber at a portion facing a portion close to the bottom surface of said ring-shaped groove in the outer circumference of said groove; and said second seal ring forms a ring-shaped projection having an inner diameter smaller than an inner circumference diameter of said ring-shaped groove in said no-load state at a portion facing a portion close to the bottom surface of said ring-shaped groove in the inner circumference of said groove.

5. (Original) A scroll compressor as set forth in claim 4, wherein part of at least one of the outer circumference of said first seal ring and inner circumference of said seal ring is formed

with a tapered surface, whereby part of said ring-shaped projection forms an edge-shaped projecting rim.

6. (Original) A scroll compressor as set forth in claim 2, wherein said at least one seal ring includes a first seal ring fit along an outer circumference of said ring-shaped groove and having a rectangular sectional shape and a second seal ring fit along an inner circumference of said ring-shaped groove and having a rectangular sectional shape, each fabricated from a material such as rubber, plastic, or metal having wear resistance, oil resistance, and elasticity; said first seal ring has an outer diameter set larger than an outer circumference diameter of said ring-shaped groove in a no-load state before being fit in said backpressure chamber at a portion facing a portion close to the bottom surface of said ring-shaped groove; and said second seal ring has an inner diameter set smaller than an inner circumference diameter of said ring-shaped groove in said no-load state at a portion facing the inner circumference of said ring-shaped groove.

7. (Original) A scroll compressor as set forth in claim 4, further provided with an elastic member arranged between said first seal ring and said second seal ring for biasing said first seal ring toward an outer circumference of said ring-shaped groove and biasing said second seal ring toward an inner circumference of said ring-shaped groove.

8. (Original) A scroll compressor as set forth in claim 6, further provided with an elastic member arranged between said first seal ring and said second seal ring for biasing said first seal ring toward an outer circumference of said ring-shaped groove and biasing said second seal ring toward an inner circumference of said ring-shaped groove.

9. (Original) A scroll compressor as set forth in claim 2, wherein said at least one seal ring is comprised of a first seal ring part fit along an outer circumference of said ring-shaped groove, a second seal ring part fit along an inner circumference of said ring-shaped groove, and a connecting part integrally connecting said first seal ring part and said second seal ring part, each part fabricated from a material such as rubber, plastic, or metal having wear resistance, oil resistance, and elasticity; said first seal ring part forms a ring-shaped projection having an outer diameter larger than an outer circumference diameter of said ring-shaped groove in a no-load state before being fit in said backpressure chamber at a portion facing a portion close to the bottom surface of said ring-shaped groove in the outer circumference of said groove; and said second seal ring part forms a ring-shaped projection having an inner diameter smaller than an inner circumference diameter of said ring-shaped groove in said no-load state at a portion facing a portion close to the bottom surface of said ring-shaped groove in the inner circumference of said groove.

10. (Original) A scroll compressor as set forth in claim 2, wherein said at least one seal ring is comprised of a first seal ring part fit along an outer circumference of said ring-shaped groove and having a rectangular sectional shape, a second seal ring part fit along an inner circumference of said ring-shaped groove and having a rectangular sectional shape, and a

connecting part integrally connecting said first seal ring part and said second seal ring part, each part fabricated from a material such as rubber, plastic, or metal having wear resistance, oil resistance, and elasticity; said first seal ring part has an outer diameter set larger than an outer circumference diameter of said ring-shaped groove in a no-load state before being fit in said backpressure chamber at a portion facing a portion close to the bottom surface of said ring-shaped groove; and said second seal ring part has an inner diameter set smaller than an inner circumference diameter of said ring-shaped groove in said no-load state at a portion facing the inner circumference of said ring-shaped groove.

11. (Original) A scroll compressor as set forth in claim 9, wherein at least part of said connecting part is configured to directly contact the opposing surface as one seal ring part.

12. (Original) A scroll compressor as set forth in claim 10, wherein at least part of said connecting part is configured to directly contact the opposing surface as one seal ring part.

13. (Original) A scroll compressor as set forth in claim 9, further provided with an elastic member arranged between said first seal ring part and said second seal ring part for biasing said first seal ring part toward an outer circumference of said ring-shaped groove and biasing said second seal ring part toward an inner circumference of said ring-shaped groove.

14. (Original) A scroll compressor as set forth in claim 10, further provided with an elastic member arranged between said first seal ring part and said second seal ring part for biasing said first seal ring part toward an outer circumference of said ring-shaped groove and biasing said second seal ring part toward an inner circumference of said ring-shaped groove.

15-19 (Canceled)

20. (Presently amended) A scroll compressor as set forth in claim 15~~2~~, wherein said at least one seal ring is comprised of a first seal ring part fit along an outer circumference of said ring-shaped groove forming said backpressure chamber, a second seal ring part fit along an inner circumference of said ring-shaped groove, and a connecting part integrally connecting said first seal ring part and said second seal ring part.

21. (Original) A scroll compressor as set forth in claim 9, wherein said connecting part is formed with at least one communicating hole.

22. (Original) A scroll compressor as set forth in claim 20, wherein said connecting part is formed with at least one communicating hole.

23. (Presently amended) A scroll compressor as set forth in claim 12, wherein said shaft is driven to rotate by a motor directly attached to said housing.

24. (Presently amended) A scroll compressor as set forth in claim 12, wherein said shaft is driven to rotate by an external prime mover such as an internal combustion engine mounted in a vehicle.

25. (Presently amended) A scroll compressor as set forth in claim 12, wherein said fluid ~~to be compressed~~ is a refrigerant flowing ~~through~~ in a refrigeration cycle and a said refrigerant is compressed to at least a critical pressure of said refrigerant.

26. (New) A scroll compressor as set forth in claim 11, wherein said connecting part is formed with at least one communicating hole.

27. (New) A scroll compressor as set forth in claim 12, wherein said connecting part is formed with at least one communicating hole.

28 (New) In a scroll compressor that has a housing; a shaft having a crank part, which is offset, and is rotationally supported by the housing; a movable scroll, which has a spiral shaped blade and an end plate and is driven to orbit by the crank part; and a fixed scroll, which has a spiral shaped blade that meshes with the movable scroll and an end plate and is fixed to the housing, such that, when the movable scroll is driven to orbit by the crank part of the shaft, a plurality of working chambers, which are formed between the blade of the movable scroll and the blade of the fixed scroll, move toward the center, and the volumes of the working chambers are successively reduced and fluid is compressed in the working chambers, the scroll compressor comprising:

a middle housing, which is provided as part of the housing and faces the movable scroll, for supporting an axial thrust load acting on the movable scroll;

at least one ring-shaped groove, which forms a backpressure chamber in one of a surface of the end plate of the movable scroll and a surface of the middle housing that faces the movable scroll;

a passage for introducing high-pressure fluid into the ring-shaped groove; and

at least one ring-shaped seal ring fitted movably in the ring-shaped groove, wherein the ring-shaped seal ring is constructed such that the ring-shaped seal member deforms slightly when fitted in the ring-shaped groove, and a cross section of the ring in a plane that includes an axis of the shaft is inclined slightly when the ring-shaped seal member is deformed.